

Notice of Allowability

Application No.

10/710,877

Applicant(s)

UNGER ET AL.

Examiner

Art Unit

Jurie Yun

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment after final filed 10/2/06.
2. ☒ The allowed claim(s) is/are 1-8, 10-17, 20-35 and 41-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. The amendment filed 10/2/06 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John A. Artz on 10/11/06.

The application has been amended as follows:

Cancel claims 36-40 in their entirety.

Allowable Subject Matter

3. Claims 1-8, 10-17, 20-35, and 41-47 are allowed.
4. The following is an examiner's statement of reasons for allowance: Prior art fails to disclose an imaging tube assembly comprising at least one seal residing between said insert and said shaft, said at least one seal preventing passage of said coolant bath into said vacuum chamber, being at least partially surrounded by a structural member of said insert, and residing between said anode and said at least one bearing, as claimed in claim 1. Claims 2-8 and 10-16 are allowed due to their dependency on claim 1. Prior art fails to disclose an imaging tube assembly comprising said anode and said shaft being in a straddle configuration relative to said insert; and at least one pressure transition chamber coupled to said insert and said shaft, said at least one pressure

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transition chamber having an associated middle fluid pressure that is between an internal fluid pressure of said vacuum chamber and an external fluid pressure of said coolant bath, as claimed in claim 17. Claims 20-35 are allowed due to their dependency on claim 17. Prior art fails to disclose a method of operating an x-ray tube comprising: generating at least one pressure signal indicative of at least one vacuum pressure within at least one enclosure of the x-ray tube, generating an x-ray tube vacuum quality signal in response to said at least one pressure signal, and determining whether to perform a maintenance task in response to said x-ray tube vacuum quality signal, as claimed in claim 41. Claims 42-43 are allowed due to their dependency on claim 41. Prior art fails to disclose an imaging tube assembly comprising said anode and said shaft being in a straddle configuration relative to said insert; and at least one seal residing between said insert and said shaft, said at least one seal preventing passage of said coolant bath into said vacuum chamber, as claimed in claim 44. Claim 45 is allowed due to its dependency on claim 44. Prior art fails to disclose an imaging tube assembly comprising a seal of said at least one seal being coupled directly to said insert, said shaft, and said pressure transition chamber, as claimed in claim 46. Prior art fails to disclose an imaging tube assembly comprising a first seal residing between said insert and said shaft, and a second seal residing between said pressure transition chamber and said shaft, as claimed in claim 47.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jurie Yun whose telephone number is 571 272-2497. The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

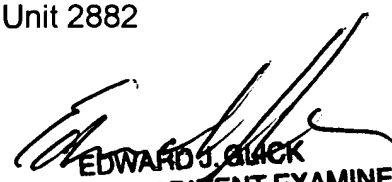
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 11, 2006



Jurie Yun
Examiner
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EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER